

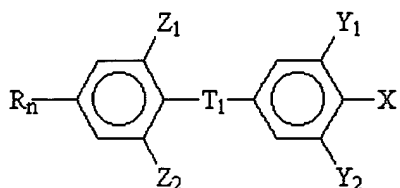
## Appendix A2: Amended Abstract with Markings to Show Changes Made

## ABSTRACT

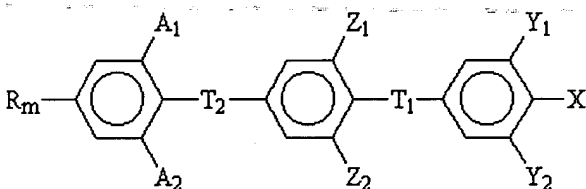
New tolane and bis-tolane compounds:

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(Structure IV)



(Structure V)

in which X is F (fluoro), CN (cyano), OCF<sub>3</sub> (trifluoromethoxy), or NCS (isothiocyanate)

at least one of the pairs Y<sub>1</sub> and Y<sub>2</sub>, Z<sub>1</sub> and Z<sub>2</sub>, and A<sub>1</sub> and A<sub>2</sub> are fluoro groups.

T<sub>1</sub> for the tolanes is a triple bond. For the bis-tolanes, T<sub>1</sub> and T<sub>2</sub> are either both triple

bonds or one of the two groups is a double bond.

R<sub>n</sub> or R<sub>m</sub> may be an alkyl group, an alkenyl group, an alkoxy group, or an alkenoxy

group. For the tolane compounds, R<sub>n</sub> may be a;

Deleted: a polar group such as

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Deleted: for the bis-tolane derivatives,

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Deleted: with and the other remains a triple bond

Deleted: having the general formula C<sub>n</sub>H<sub>2n+1</sub>

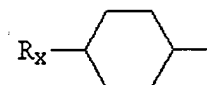
Deleted: having the general formula C<sub>n</sub>H<sub>2n-1</sub>

Deleted: having the general formula OC<sub>n</sub>H<sub>2n+1</sub>

Deleted: the general formula -OC<sub>n</sub>H<sub>2n-1</sub>

Deleted: Additionally, f

Deleted: cyclohexyl substituent

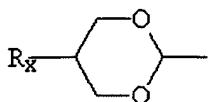


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dioxane substituent:

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(Structure VII)

in which  $R_x$  may be as  $R_{II}$  or  $R_m$  above,

Deleted: is an alkyl group having the general formula  $C_nH_{2n+1}$ , an alkenyl group having the general formula  $C_nH_{2n-1}$ , an alkoxy group having the general formula  $OC_nH_{2n+1}$ , or an alkenoxy group having the general formula  $OC_nH_{2n-1}$

These compounds exhibit useful nematic ranges and melting points. Also disclosed are eutectic mixtures including these compounds.